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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,312	04/21/2006	Fadil Sadikay	1578.19624-PCT US	3811
26308	7590	07/06/2007		
RYAN KROMHOLZ & MANION, S.C. POST OFFICE BOX 26618 MILWAUKEE, WI 53226			EXAMINER BENTON, JASON	
			ART UNIT	PAPER NUMBER
			3747	
			MAIL DATE	DELIVERY MODE
			07/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/562,312

Applicant(s)

SADIKAY, FADIL

Examiner

Jason Benton

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/21/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10, 13-19, 21-31, and 33-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Collier, Jr.

The patent by Collier, Jr. (6,397,790) shows a hydrogen containing gas is a gas blend or mixture produced by a hydrogen generator and comprises hydrogen and at least one other material produced in the hydrogen generation process at the same time as the hydrogen is generated. The hydrogen generator produces the hydrogen containing gas blend or mixture, the temperature of the gas blend is reduced by passing the gas blend through a heat exchanger, and the gas blend or mixture is introduced to a compression engine as one component of the fuel. The relative amounts of the hydrogen and of the at least one other material of the gas blend or mixture are selected in accordance with the nature of the at least one other material and the requirements of hydrogen assisted combustion of the engine.

The non hydrogen components of the gas produced by the hydrogen generator do not all require full removal prior to combustion of the gas in a compression engine

using hydrogen assisted combustion but that the gas blend or mixture containing the other component or components can be used as a fuel or fuel additive.

The at least one other material is selected from the group consisting of: oxygen, nitrogen, water, ethanol, carbon dioxide, carbon monoxide, hydrocarbons, methanol, methane or combinations thereof.

The hydrocarbon material produced in the hydrogen generator is a paraffin or paraffin-like hydrocarbon containing saturated bonds.

The hydrocarbon is a C_1 - C_{20} hydrocarbon or a combination thereof.

The methanol, methane or similar materials produced in combination with the hydrogen gas are produced from a fuel material such as diesel, petrol, canola oil or the like.

Operation of the hydrogen generator is adjusted to produce a desired ratio of hydrogen to the at least one other component in the gas mixture or blend formed by the hydrogen generator.

Operation of the hydrogen generator is adjusted by altering parameters including one or more of the following, the composition of the materials introduced to the hydrogen generator, the velocities of gases of the various components, the temperature of operation of the hydrogen generator, the pressure of operation of the hydrogen generator, the velocity of gas being passed through the generator, the catalyst being used in the generator, the amount of exposure of the reactor to the catalyst, the type of hydrogen generator used, the nature and composition of the other component produced

simultaneously with the hydrogen, the amount of cooling of the gas blend before it is introduced into the engine.

The gas mixture or blend is added directly to the engine or indirectly to the engine after cooling.

The hydrogen generator is selected from the group consisting of: an electrolysis apparatus, a fuel cell, a fuel processor, a reformer, a cold fusion apparatus or other apparatus for producing hydrogen along with one or more other materials.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collier, Jr.

The patent by Collier, Jr. does not specify the pressure the hydrogen generator is operated at or the type of catalyst in the reformer. It is the view of the examiner that the pressure and the specific catalyst are obvious choices of design because no new or unexpected results are achieved.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 20 recites the limitation "the fuel cell" in line 2. There is insufficient antecedent basis for this limitation in the claim.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Benton whose telephone number is (571) 272-4838. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Cronin can be reached on (571) 272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JB



STEPHEN K. CRONIN
SUPERVISORY PATENT EXAMINER